Appl. No. 10/604,599
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AMENDMENTS TO THE SPECIFICATION

In paragraph [0036]:

5   Fig.4 shows a first embodiment of a color conversion apparatus 30 of the present

invention. The color conversion apparatus 30 converts a first color having red, green, and

blue values (R, G, B) in a first color space to a second color having second red, green, and

blue values (R', G', B') in a second color space. The color conversion apparatus 30

includes a gamma correction circuit 32, a g1 lookup table 34, a b1 lookup table 36, an r2

10   lookup table 38, a b2 lookup table 40, an r3 lookup table 42, a g3 lookup table 44, a first

adder 46, a second adder 48, and a third adder 50. Each of the lookup tables 34, 36, 38, 40,

42, 44 is implemented with a 32-byte memory as shown in Fig.3. The first red value R is

connected to the gamma correction circuit 32, the ~~g1~~ r2 lookup table ~~34~~ 38, and the ~~b1~~

r3 lookup table ~~36~~ 42. The first green value G is connected to the gamma correction

15   circuit 32, the ~~r2~~ g1 lookup table 34, and the ~~b2~~ g3 lookup table 44. Finally the first

blue value B is connected to the gamma correction circuit, the ~~r3~~ b1 lookup table 36,

and the ~~g3~~ b2 lookup table 40. The output of the g1 lookup table 34, which is the result

of the multiplication of G*g1; the output of the b1 lookup table 36, which is the result of

the multiplication of B*b1; and the gamma corrected R-value r1-gamma are added

20   together by the first adder 46. The output of the first adder 46 is the second red value R'.

The second adder 48 adds together the output of the r2 lookup table 38, which is the result

of the multiplication of R*r2; the output of the b2 lookup table 40, which is the result of

the multiplication of B*b2; and the gamma corrected G-value g2-gamma to produce the

second green value G'. Similarly, the third adder 50 adds together the output of the r3

25   lookup table 42, which is the result of the multiplication of R*r3; the output of the g3

lookup table 44, which is the result of the multiplication of G*g3; and the gamma

corrected B-value b3-gamma to produce the second green value B'.

In paragraph [0037]:

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Fig.5 shows a second embodiment of a color conversion apparatus 51 of the present invention. The color conversion apparatus 51 converts a first color having red, green, and blue values (R, G, B) in a first color space to a second color having second red, green, and

5   blue values (R', G', B') in a second color space. The color conversion apparatus 51 includes a g1 lookup table 52, a b1 lookup table 54, an r2 lookup table 56, a b2 lookup table 58, an r3 lookup table 60, a g3 lookup table 62, a first adder 64, a second adder 66, a third adder 68, and a gamma correction circuit 70. Each of the lookup tables 52, 54, 56, 58, 60, 62 is implemented with a 32-byte memory as shown in Fig.3. The first red value R

10   is connected to the g1 ~~r2~~ lookup table 52 ~~56~~ and the b1 ~~r3~~ lookup table 54 ~~60~~. The first green value G is connected to the r2 ~~g1~~ lookup table 56 ~~52~~ and the b2 ~~g3~~ lookup table 58 ~~62~~. Finally the first blue value B is connected to the r3 ~~b1~~ lookup table 60 ~~54~~ and the g3 ~~b2~~ lookup table 62 ~~58~~. The output of the g1 lookup table 52, which is the result of the multiplication of $G*g1$, and the output of the b1 lookup table 54,

15   which is the result of the multiplication of $B*b1$, are added together by the first adder 64. The second adder 66 adds together the output of the r2 lookup table 56, which is the result of the multiplication of $R*r2$, and the output of the b2 lookup table 58, which is the result of the multiplication of $B*b2$. Similarly, the third adder 68 adds together the output of the r3 lookup table 60, which is the result of the multiplication of $R*r3$, and the output of the

20   g3 lookup table 62, which is the result of the multiplication of $G*g3$. The output of the first adder 64 (R"), the second adder 66 (G"), and the third adder 68 (B") are connected to the gamma correction circuit 70 and the output of the gamma correction circuit 70 is the second color value comprising the second red value R', the second green value G', and the second blue value B'.

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